

John deVadoss - invitation to participate in the research pr...

Thu, Nov 03, 2022 9:31PM • 48:44

SUMMARY KEYWORDS

blockchain, people, codify, trust, enterprise, supply chain, tensions, point, management, organizations, terms, big, instance, technology, incentives, data, attempting, executives, ecosystem, business

SPEAKERS

Augustine Madumere, John deVadoss

Augustine Madumere 00:00

Welcome, Thank you so much for taking the time to join me today. I am researching tensions associated with implementing and using blockchain technology in the supply chain and the resulting paradoxes for my masters thesis. The knowledge of blockchain-related tensions and contradictions is nascent and limited, and the goal is to validate identified existing tensions using interviews. Can you please introduce yourself, share your knowledge and experience regarding supply chain blockchain applications?

John deVadoss 00:10

Yes. I've spent probably 20 - 25 plus years in the enterprise world. Primarily, how do you say it? Multi entity cross entity. So multiple enterprises, multiple organizations, attempting to collaborate to cooperate, to create shared business outcomes and values. So the topic is of interest to me very much. But before you jump into the questions, I wanted to sort of give you two high level points, if you might, thank you, that I think would be of interest and possibly of value, the first thing I want to share with you is that in the enterprise, domain Augustine. To do anything, takes time to attempt to do anything, however simple, however easy, it might appear quite corrupt, even how a trivial it might appear, it takes time. And so there is this very expensive domain called Change Management, which you're probably familiar with. Right, sometimes called adaption and change management. Change Management, is a massively expensive consulting exercise, you know, billions of dollars, maybe 10s of billions, are spent every year. Ostensibly with the goal of creating change within an enterprise. Almost always, it fails. And it fails not because of technology, not because of lack of expertise, or it fails because of culture, and values, and the socio economic aspects of the organization, the enterprise and the chain. So I want to just emphasize upfront that many of the questions and challenges that you appear to be addressing or at least attempting to address are probably going back decades, you know, 50, 60,70, 80 years in terms of what is called Change Management. And the reason I say this upfront is, in many ways, I don't see them as unique to blockchain this first point, yeah, I agree, or a dog or a dog, the same thing happened with cloud platforms and cloud technologies 1015 years ago, what do you might call the

tensions were apparent. And if you go back to the late 90s, with the internet, the same things appeared again, right with different dimensions may be different impacts positive and negative. But certainly, this element of change management of trying to create change in the enterprise is a long standing issue problem, if you want to call it not always successful. The second thing with respect to blockchain, and this is, for me of great interest with respect to blockchain is that especially in a supply chain context that you're looking at, you have multiple enterprises, multiple organizations, and ostensibly and once again, Blockchain is attempting to take people out of the equation to try to use code to codify these contracts, these transactions is multi party relationships. And that is a significant threat to the existing people to the existing systems to the existing processes, methodologies and culture. And that is unique to the blockchain problem in the supply chain. This this goal, this purpose, this ambition or aspiration, to try to codify because today, and looking back in history in the enterprise, legal departments, legal departments play a very big role in these multi party contracts, in trying to edify in trying to put penalties and rewards into incentives, but most of all trying to protect or attempting to protect their organizations.

John deVadoss 03:34

And I believe this is going to be the fundamental issue that you face with respect to blockchain in the supply chain domain is how do you on one hand, portray this picture of code? You know, addressing this more Not a party contract, when in reality, looking back in history, it's the legal people, it's the consultants, the contractors, the outsourced vendors, you know, this tons of people who have been given this task of trying to ensure the contracts across multiple organizations protect the organization's and this then I'll tell you billions 10s of billions, maybe hundreds in this particular element. And so blockchain is a significant threat to all of these people do these budgets to these 10s of billions of dollars? And so change management, which is my, my first point to you, is going to be critical. And if you're not, how do we say it? Using diplomacy, if you're not using all of the skills of political savviness, to create this change management aspect, it will be fraught with problems with issues with failures. And that's just the nature of the game because people fight change. Right. So those are the two things I wanted to tell you upfront, because I saw your questions. And I realize, I need to share with you what I've learned, what I observe on what I see. And to me this is kind of a preamble to this particular problem, which needs to be clear upfront. There is no magic here.

Augustine Madumere 06:33

Thank you, you just mentioned that. So let me be a little bit of explain how I came to this question is on this project, I had a professor that she did an analysis looking at all the previous academic journals. So there are the the research done on on supply chain, and blockchain and he identified areas of conflict, right. And then they were categorized into controllable tensions, which as a result of the design of the blockchain and manageable tensions, are those tensions that persist regardless of how the infrastructure is designed. For example, with private blockchain comes exclusivity, right, you have to deal with restricted access and also that you can, for instance, have a single source of truth let me be having a policy governing board that decides who comes out on the ecosystem. So, and then this tensions were looked at from the point of view of what you mentioned before the pre existing tension areas, you know, which in terms of a growth, profitability, alignment of business objectives, conflicting elements, or you want to have a short term or long term implementation, in the sense that a long term means you have an open public blockchain where you identify strategic partners that help you to grow the blockchain over a long time? Or do you go to a private or is a hyperledger permissioned blockchain

where you can just plug and play. So you have a short term of implementation. Right. And that that will also have each have is a kind of tensions in terms of what are the objective of your business? Do you feel comfortable? Is the objective to make profit, maximize profit now, or is it long term innovation? So what you said in the beginning, actually, it's it is in line with the research, and I have an article where I took from, I think it's from managing tensions written by frood. published in 2012. I don't remember the exact dates. But this these things that you mentioned, were all in order. But the fact that it was also interesting when it comes to blockchain, right? At least, but I'm trying to identify is, are there for companies that want to implement what they should look out for what should be kind of a food for thoughts around implementation? What should they expect? There are some companies on the ecosystem of I'm using IBM Food Trust in this case, that don't have a technical experience. There is no technical knowledge. It was just a farmer. And then they're done. So for them, for me, these participants might not give a reliable or important insight into the research. Right. So this these points are very clear. I'm glad that you put this

John deVadoss 10:35

Okay. So I'll tell you, academics, professors, Augustine, do not understand what happens in the real world. They have this idealized models. And it's very comfortable for them, because it's very easy for them to try to analyze and then to publish in journals, what they believe is happening in the real world. And very rarely, if at all, does it correlate to what actually happens? For instance, you know, you said the point around, do you want to focus on profitability now? Or do you want to focus on innovation? That is absolutely. The worst question. You could tell somebody in the enterprise. And they will say, you don't have any understanding of what goes on? Because it doesn't work that way. Right? They have three months, they have quarterly reports, they don't have a choice but to focus on profitability. Right? It's not an All right. And so when academics talk about this element of how to address I think, and I'm pardon me for being very, to maybe if I'm too direct, but I want to help you, because as you think this through, after your masters, you know, you'll probably want to work, or at least pursue some interest in the commercial workplace, I presume. And so I would like to help you to get this this project set in a way that reflects that you understand what goes on in the real world, right? So models, you know, somebody said, right, all models are incorrect, but some are more incorrect than others. Like it. So I would, I would caution you to be careful with the use of the strong tensions because tension, as you say, it is a fact of life in the real world, I guess. It's just a fact of life in the commercial sector every day. Executives are grappling with sometimes conflicting priorities, like always, and that's why they get paid the big, big money, right? So it's like, it's just a natural aspect. And so, to your to your question, like, if you agree with me that change management is this long standing endemic, you know, challenge that is faced by every organization, small, medium, large, right, no matter what, and even state governments public sector, it's just a fact of life change management, anything new is going to be resistance, x, y, z doesn't matter what it is, you know, what you want to have a new iPhone release, that's going to be changed management, it's just a fact of life. Right. But the second point in terms of the blockchain to your question, because by its very nature, it's not only threatening one organization, it's threatening sort of this system of organizations right, this ecosystem, right, this network, it is seen as an even bigger threat by people in a shared sense across these organizations. And therein lies the deeper issue or the deeper challenge of how to because if we go in and say look, this is going to essentially codify you know, the supply chain domain, as you said, in terms of how enterprises organizations collaborate, you know, partner and so on, almost immediately the response is no way.

John deVadoss 13:51

Right. And so, the challenge is going to be I think, how, and I say this with firsthand experience, having gone in with an idealized perspective, and trying to evangelize and get these people to adopt and then and then being told, forget it, right. So how do you ensure because between you and me, the end game is very clear, this will happen. Supply chain will be codified supply chain will use smart contracts. It's very clear the writing's on the wall. The question is, how do you get that? And the only way to get there, I think is going to have to be a very slow process of working with egos and people's security of their jobs and the culture, right and the existing systems and frameworks of how they attempt cross organizational collaboration. And that is almost always a lot of paper, plenty of legal right. Many of the blockchain ecosystem or network or supply chain projects stole they stole because they cannot get past the legal departments across these organizations because they are not used to it There's not a not something they're familiar with. And that I think is going to be a combination of case studies of stories, right, primarily case studies of how we are able to educate, and help people to understand, but also a facet of how aggressive some industries will be, and that executives will be in mandating and forcing, right. And so this is the flip side of change management, change management can be a very political process of trying to massage people's egos and get them comfortable, to not make them, you know, sleep when they come in Monday morning. The other way of doing it is an executive mandate, stop down and says, Look, this is the future, this is how we're going to do it. And that's what you saw happen with the early days of the internet. Right? Many, many executives said, we will do business over the Internet, whether you like it or not, no deal with it, figure it out. Otherwise, it would never have happened, right? Between the consumer perception of security or lack of and the organizational sense of, you know, how secure is it for me to put my consumer interaction over the web, it would never have happened. But But executives, some executives realize they had no choice. And that's how I see this right, that there will be some domains some sub domains in the supply chain sector, some executives will stand up and say, Guys, we don't have a choice, if we're going to do this or not just go do it. And that's that's how I see this, what you call the tensions being resolved. In my in my humble opinion.

Augustine Madumere 16:32

What I mean, from summary from what you just said for me is that we need at a point management buy-in or management mandates to roll out this right, irrespective of the financial implication to the quarterly or yearly performance.

John deVadoss 16:59

the implications, any implication not just financial, but cultural, you know, in terms of human resources, and otherwise, I'd say look, you know, go figure it out, right? It's not rocket science, right? It's nothing is that complicated? What is complicated is the people and the processes involved the legacy. People say, Oh, we've always done it this way. This way. Yes, true. You've always done it this way. But now's the time to do it a different way differently.

Augustine Madumere 17:28

Thank you. I really, it's some of the things you're mentioning correlates with what I had this morning, an interview with a practitioner from Carrefour, and he was building his own blockchain on Ethereum. And

then, and then suddenly, IBM wanted to have an European big retailer on this blockchain, they reached out to nestle Nestle. Let me say we talked Catrrefour into as a big supplier, into using the ecosystem. So when they move from their existing blockchain, that where they're building to IBM, they found that that IBM, from a technical point stamp point of view, was not there where it should be. But because of the commitment or like the mandate from the management, they had to switch, they had a better solution but they had to switch to that to be able to support the big players as well. And to be in that ecosystem, where many of their partners are already going into. And which is seen as a better, not better in terms of technicalities, but also better for the market. Right? So I agree, it's, I looked at this instance, it's really in alignment with what previous participant mentioned, I think we're having a different kind of conversation than anticipated. But I'm glad. And I'm happy that you're bringing these things up. It kind of throws me off balance.

John deVadoss 19:11

I figured, you know, I need to give you this perspective, because I think it's important that you hear like, a diverse set of viewpoints. Because you will publish this. And I would like for you to publish something that is credible, as from the practitioner point of view, as opposed to what might be very much an academician point of view. Right. And I don't want to be little academia, it's just the reality that professor who spends 30 years in school doesn't really understand what happens in the real world. It's just a fact of life. Right? I want to go to something else. You mentioned a couple of times earlier, you spoke about public blockchain, private hyper ledger and so on, right. So in the enterprise space, there is this Troika sort of this this three legged stool, **people Process Technology**. Right technology is at best one of the three dimensions, people and process together, you know, can outvote technology, technology in itself is not enough to be able to overpower people in process. So in my experience, 25 plus years, technology is the easiest part, it doesn't matter. Like no technology is superior or inferior that much. **People say I have a better product, not true. They're all comparable. Yeah, there'll be some little pieces here and there, that might be different. But fundamentally, at the core, it's all the same. So I would say, trying to push a certain technology, or a vendor, or even this public versus private, in some sense, I think, potentially can be misleading. With that said, I'll give you my opinion, public blockchains will not work for the enterprise. I will not. And so anybody who says look, we can use XYZ theory, I'm not going to have, like, you know, supply chains have always been private, for variety of reasons. Like, obviously, you know, in terms of IP, intellectual property at the core at the base, right, you know, whether they see it as value add or not the perception of needing to protect the perception, forget about the reality of needing to protect it, and the fact that they have the budget, they're not trying to save money on IT, they have the budget, right, and so they're willing to spend the money to build a private in whatever you want to call it, chain network. It's always been that way in the history of computing. And so for us to assume that somehow public, you know, will happen, highly unlikely, maybe some small outliers here and there, but by and large, supply chains will be private, because there are certainly not to be private, no need to be not.**

Augustine Madumere 21:59

I mean, you will also would like to restrict, users on it, to know who is using it, right. To be able to control control has to be able to control data that is common in the data integrity, data privacy, and data sovereignty, for instance. Also make sure that, that users and or business owners can be comfortable putting the data in the ecosystem, knowing that competition when copied. So it's Yeah, so that is, for

instance, I as a farmer, I can give access to data to who I want to, right, not just that everybody goes to Explorer on the blockchain, and then we see every transaction

John deVadoss 22:53

precisely. So two words you mentioned, very important. One is control. Right? Control are more importantly, the illusion or the perception of control is very important to commercial organizations. In reality, they might not have the level of control they believe they do. But the illusion, the perception that they're in control, they are willing to spend a lot of money and will prioritize it. Because the alternative is potentially, you know, people losing jobs. And that's not what they want to do. So, they will do everything they can to say look, I am protecting IP for the Corporation for the entity, I am making sure that you said that you are in control of who can see who can do who can use, right and who can even be used the system. So those are very critical things in terms of the commercial enterprise world.

Augustine Madumere 23:56

There's also a caveat to it when we say that they let's say for instance, IBM provides the solution. And there is no way they will not have access to the data from an admin point of view, so there might be for the case to improve the technology improve the ecosystem, they might have access to the data to for whatever reasons to see if their models needed to be developed. And as such, they can also use the data to improve the platform, which again increases the value of the platform and ties these customers to the platform. So it's a big elephant in the room then because they're small companies cannot pull away. They depend on the services of a big player and as such, they are kind of bound to use the services and also they have a cost related relationship that IBM can then change the prices whenever they want. Yes.

John deVadoss 25:11

And this is another interesting point, you mentioned that in our attempt to codify the supply chain to use code to use smart contract. As a side effect, there is the perception or maybe even the reality that the big dogs in the supply chain, do not have the same level of control anymore. With respect to this, like you said, the smaller players, right, because they're all essentially, in some sense, how do we say it playing very similar roles, because code is what is driving it in today's supply chain, bigger players, and you know this very well, as well as I do, the bigger players dominate, threaten and squeeze the smaller players in terms of pricing in terms of inventory, that's just a fact of how supply chains work. And they like it, the bigger players like it, right, but when you move to a code based system, it's less and less likely that they can mandate or enforce something like that, because it will be recorded in the ledger. It will be there for posterity. Whereas if you're doing it purely off ledger, shall we call it? Right? You're doing it through phone calls, and probably you know, a meeting at lunch. There's no record of it. That's something else that we face in terms of truly the really big players being willing and amenable to move to a fully code bases.

Augustine Madumere 26:42

If we move to a code based system, how to one establish trust, in this regard, let's say a small farmer, and the big player like Carrefour or Nestle, how can trust be established?

John deVadoss 26:56

Now who is the party asking for trust? That's a good point. Right? Because we get carried away. Sometimes we talk about blockchains and trust, and about decentralization and establishing trust. Right? The real question is, who is the party asking for trust? The small farmer today has no choice but to work at the mercy of the big guys, right? He's not the he or she is not the guy who can make any demand for the most part. Right? He or she is working, essentially, within the framework laid out by the big guy, the big guy is not looking for trust, he or she, the big guys, they realize that they have the economic power, right? To mandate to enforce to control, if you will. And so that's the paradox here, whether the trust is really a problem. How much of a problem is trust or lack of and who? Who has the incentive? Where is the incentive to look for trust? I agree with you, in an idealized world, in light of parties, that are almost have equal power, equal strength equal capability? Yes. Then we are talking about yes. Right. But I think the fact is that predominantly in today's supply chains, there is a big dog there is a big player in his own ecosystem of vendors, suppliers. Now the suppliers may participate in multiple of course, they participate in multiple the past present in Nestle's and Amazons and Walmart's and Starbucks, right, they have multiple participation. But I think this element of trust is something perhaps, we see from a very theoretical perspective, in practical terms, I am not seeing people demanding, how to establish trust, right now, not to completely disillusion you not to completely take away the energy. On the flip side, there is a positive here. With blockchain systems, we can design incentives intrinsically right. And therein lies I think, the the wage to get in, because if you can codify the incentive model, it is in the interest of the vendors, the suppliers, the small farmer, right, that there is integrity in the code. That is one mechanism, I see how we might be able to get these blockchain technologies into supply chain to be able to codify the incentives and the penalties. Because today, that is an overlay perhaps, you know, it happens by people inspections, paper, Excel spreadsheets, right? That could be an interesting, I certainly believe my opinion, my humble opinion, that codifying incentives and penalties is of benefit to all the parties involved. Why? Because it takes away potentially legal wrangling and time and money and energy spent on legal conflicts and resolution. Right. So maybe it's not trust. I think it's the incentive model because the cryptoeconomic protocols baked in, help us to design the incentives to design the penalties right there. Right. And if the code is there, then there is probably less money time energy spent in conflict resolution and potentially legal back and forth, in my opinion,

Augustine Madumere 30:19

I had get same point from my previous participant as a practioner, so the views are slightly different when it comes to academia, where we're talking about, using smart contracts, to put the trust in the code. Or you can trust the institution that is providing the solution, however, those legacy those small participants might not have to come up with the capability of them of no interest, no use in terms of trust, they just want to provide data. But what you can also do with it, like the possibility that it gives you when you have it, let's say for instance, a typical example is, is a farmer that has, let's say 1000 plants of tomatoes, each of them can do between 11 and 14 kg, like normally, and now he delivers 16k In a year, something is wrong somewhere. Maybe he claims the conditions are different, because you know that it is between a certain range, you have the data already, and you can trace back to where it's coming. Is he buying from a different supplier and sent to you while claiming that this the conditions are the same within these farmlands? So there's a lot of things you can do on this level of trust and accountability as well.

John deVadoss 31:56

Yes, it's a fine point. Sorry to jump in. But I would say think of it. Not as trust Augustine, think of it as compliance?

John deVadoss 32:14

compliance, right, not as trust because trust is a very broad term. And when you go into an enterprise organization, implying that somehow trust can be codified, you're gonna get a very skeptical response. Trust is multi dimensional trust is Cultural Trust is, you know, decade relationships, right? Trust is social trust is a lot of factors come into play, when you can say compliance, that you can save money with respect to compliance, because you can bake in the incentives, the penalties, right? When you say you can address maybe governance, right, I believe, then then you have perhaps a higher probability of success, of engaging and even getting through, unlike when we say we can manage trust, because when we say we can manage trust, they're gonna look at us and say, Well, you don't really know how we manage our partner relationships, right?

Augustine Madumere 33:12

I believe in your number of years, you have seen a lot of implementations of blockchain in real life. If I mean, if I'm asked, What are the challenges for businesses? During the implementation and usage? What are the steps to integrate this solutions?

John deVadoss 33:33

Yeah, so it's no different from in the first part, like I said, it's no different from any other enterprise technology, like change management, you start small, you start really small, you don't go in and say, let me solve this big problem. You saw you start something small. You do a pilot, you show the value to the business, you showed the return on investment, then you scale it slowly. That is true of any enterprise technology. Right? It doesn't matter security, Cloud Storage, it doesn't matter. The second piece, no, of course, like we said earlier, what makes this different, unique interesting, is the multi party aspects. And that, in my opinion, is still very much an exercise in progress. We are still facing this challenge of how will they abdicate or even the perception of abdication of control to code. It's not easy. Today, multiparty contracts, any any contract across even two companies. And you just say, you know, how many people are involved? How much paper how much process, how much time how much negotiation? Right, how many clauses, and how many outs? It's a very, very long, expensive process, right? And when we say, Look, we can codify it. They look at us, like we don't have a clue what we're talking about. And So therein lies the big challenge. I think it's going to be a hybrid mechanism of offloading like we said, compliance, right, of being able to offer maybe governance and say, Look, you manage the trust, right? But let the blockchain technologies manage compliance for you and save you money save you, save you time, right save you this whole exercise of reconciliation and conflict, perhaps that's one way. But I think this hybrid mechanism is going to be around for some time. Because it's highly unlikely that in one stroke, they will say, yep, you know, we now trust the system, it will take care of this multi party relationship for us highly unlikely. I realize I'm giving you maybe a somewhat contrarian perspective, maybe a somewhat different perspective, but I'm telling you, as I see it, it is obviously my opinion. So take it not as the gospel truth, but as an opinion or perspective.

Augustine Madumere 35:51

That's why having to validate the framework, because, for instance, The topic is a little bit complex, because when you say change management is change management, we know what comes comes with change management, right? The mindset needs to change, you need to check if you have the right if you have the capability technical capabilities to do these things. Do you have a management that is willing to support you? Do you have a sponsor? That is that is there to support. And then and then find ambassadors who will help to build the new culture? Right here, we'll talk about the topic, bring the positivity, positive side of the topic of the of the of the phenomenon all the time, for you to for people to understand and find a way of creating awareness around it, right? And the urge for change. These are standards, right? And if blockchain is a new technology, I mean, it didn't exist in there. But implement is now new. It comes with those challenges that we had before. It's not new. So it is sometimes it's difficult for me to have a straightforward interview without falling into challenges and risk. Because then we deviating from the contradictory aspects of it, which is somehow also very clear that for some of the, like you said, that's not a new, the only different thing is that is a multi party solution. Yes, right. And you're touched on a lot of touch points, you're going to remove certain processes that are dependent on individuals, that is creating jobs, for instance, right, you're taking some jobs away. Correct. But with implementing blockchain, for instance, you're you're replacing humans with with, with code. And then and also, that means that data can be transferred real time without even before the surfaces, your shipping a carton of wine, or a bottle of wine and expensive wine to the US. And you want to make sure that the temperature stays the same. Right? You can, you can have a solution that transfers the data every one hour to tell you the temperature know that the product is still you still in the shape that we that you want to have it right, I know that it doesn't lose value. And even if they there are certain volumes that are spoiled, it's clear to see when and where. And all those settlements can be done without paperwork and a lot of paperwork. So as this also reduced cost, which is when he was talking about costs, this is human resources, people and culture that what you mentioned before, so I'm happy that we are having these views. Because it's good to have a balanced view. And, um, the more I have petitioners on board, the more the views are diverse, the more the more they have a different perspective, contrary to to the what I call classroom knowledge.

John deVadoss 39:09

Yes, it's very well said very well said. You made an interesting point. And let me give you sort of one more data point for you to think about, you mentioned cost saving, right? In the commercial world. In the world of enterprise software. There are two ways of driving an IT project, you can focus on like you said **cost saving, or you can focus on growing revenue growing market share** two ways. Rarely can you sell something with both the goals if you try to push both the goals, they will be very skeptical, and they will think that you don't understand. Now here's the key. If you push cost saving, you will end up talking to the accountants right to the bean counters as they say the accountants and they don't care about the technology or the capability they're gonna say okay, tell me how much, right? And your discussion will be at mid level accountant level. Right? You will not even probably go to the CFO. However, **if you sell it as growing, growing market share growing revenue, then you can go to the C-level, you can even probably talk to the chief executive or the board. Right.** So this is another important aspect here in terms of how, you know, people in the industry will want to position blockchain, you're right, you can certainly position blockchain as a cost saving element. Absolutely. But it will end up on the accountants in the CFO. And it will be a long process of trying to justify and show every cent every dollar and show me it's actually making a difference. Right? **I tend to believe that blockchain is a revolutionary**

technology, it will change the business. And it's about growing new markets. And so personally, I think it should be positioned to the board of directors to the chief executives in that way. And that's also how I think like we said earlier, you can get the mandates to cause change, to make it happen no matter what, right. It's like the internet, if somebody said, Give me a cost and ROI model to show why I should do business over the internet, they will still be struggling.

Augustine Madumere 41:15

I agree. Apart from during the COVID. It was no more a struggle. Because my current company where I worked in telecommunication company, our online sales were around 10 to 13%. Right? During corona, they went to 85%. Because all the shops were closed. And post corona now we're still struggling to maintain 50%. Yes. And so we have changed our processes, and everything, to building an digital teams to build digital products so that we can see if we can get go up to 70%, which is really difficult when people can now walk outside. And we're not selling shoes or stockings or you change every now and then we are changing. We're selling products that you use for 12 months minimum, right. It's a bit difficult to get people online to switch. You want to consider the cost of switching and everything. Yeah,

John deVadoss 42:15

It's a very interesting case study for sure. So anyway, like I said, you know, I'll just be cautious and cognizant of the pros and cons of selling a technology as easy as saving money or as growing revenue growing market share. It's a big difference in terms of how you can land successfully. Thank you.

Augustine Madumere 42:39

I was just going through my question here, we have touched almost, from the trust to the accountability at all organization. Very good. Is there anything else you want to add that I might missed out? Right, will be barriers as we've talked about it slightly, and maybe direction or direction that you see that the blockchain ecosystem is going we should pay attention?

John deVadoss 43:13

Certainly, there's a lot we could talk about there's a lot that says I'm sure you can imagine we could we could go in but in the interest of your time and certainly in the interest of scoping your report, I would emphasize one aspect. For decades IT enterprise , the IT department has been used to very comfortable acclimatized to working with technology that has no knowledge of economics, no understanding of economics, no need to have any knowledge of economics, Blockchain platforms, however, demand require an understanding of economics to be able to be applied effectively. You can use a blockchain very much like using a decentralized database. You can of course, but you realize that when they do so they're not really exploiting the power of the blockchain platform to effectively use blockchain capabilities, enterprise IT departments have to understand economics, or at least economic principles, or at least incentives and how incentives and penalties work and how to codify them. This I see as a fundamental shift, that is going to take time in enterprise IT departments because you're fighting against 50, 60,70 years of history of saying Technology and Economics are two different things. It makes sense.

Augustine Madumere 44:47

Thank you.

John deVadoss 46:35

Absolutely. And this is, as you can imagine, a huge shift, right for an industry that has no, almost minimal awareness, or understanding, or being able to use it. And I think we will need a new generation of IT People to come in and say, look, I can blend the two, like not going to be easy.

Augustine Madumere 46:57

Yes. So maybe offering economic classes to software engineers.

John deVadoss 47:02

Yes, absolutely. That's Precisely, precisely, I don't think we have a choice, I guess, I think people underestimate the change management, right, in terms of the skill set. And this is about change, management of skill set, right, which is critical. Otherwise, you know, they will use it as a database as a ledger. And of course, then what is the point? Right? They will not see the benefit. And they will tell you that look, it's not working.